



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/389,318	09/03/1999	OSAMU SUZUKI	001560-372	5287

21839 7590 02/20/2004

BURNS DOANE SWECKER & MATHIS L L P  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER

MARX, IRENE

ART UNIT	PAPER NUMBER
----------	--------------

1651

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/389,318

**Applicant(s)**

SUZUKI ET AL.

**Examiner**

Irene Marx

**Art Unit**

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/6/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 31-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 31-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1651

Since this application is eligible as a Continued Prosecution Application under 37 CFR 1.153(d), the finality of the previous Office action is hereby withdrawn pursuant to 37 CFR 1.153(b). Applicant's submission on 8/11/03 has been entered.

Claim 1, 6-7, and 33-37 are being examined on the merits.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 7, 31-33 and 35-37 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

No basis or support is found in the present specification for the production of 7 g/l arachidonic acid under the conditions of the claim designated invention with any strain of the genus *Mortierella* or any member of the genus *Mortierella*, subgenus *Mortierella*.

Applicants rely on Example 2 as basis and support for at least some of the conditions. It is noted that the example is directed to one particular strain of *Mortierella*. Please see *PurduePharma v. Faulding* 56 USPQ2d 1481 (CA FC 2000) for a discussion related to a failure to describe a claimed generic concept in the narrative portion of the specification, but rather basing support on limitations in examples.

Therefore, this material raises the issue of new matter and should be deleted.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-7 and 31-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1651

Claims 1 and 33 are confusing in the recitation of “species” *Mortierella*. This is a genus. Also the intended meaning of “sp.” in this context is unclear and appears redundant.

Claim 6 fails to find proper antecedent basis in claim 6 for “subgenus *Mortierella* and the genus...”.

Claim 34 is vague and indefinite in the recitation “culturing a microorganism of strain *Mortierella* sp. SAM 2197”. There is but one single strain *Mortierella* sp. SAM 2197”.

Amendment to “the strain *Mortierella* sp. SAM 2197” would be remedial.

Claim 31 is vague and indefinite in that the medium wherein the member of *Mortierella* has the ability to produce about 7 g/l is not defined with sufficient specificity.

Claims 35 and 35 are vague, indefinite and confusing, it that is it unclear which strains of fungi are properly classifiable as members of the genus *Mortierella*, subgenus *Mortierella* or in the “sections” now enumerated.

### ***Response to Arguments***

Applicant's arguments have been fully considered but they are not deemed to be persuasive.

The arguments that the genus *Mortierella*, subgenus *Mortierella* are in accordance with the teachings of the specification is noted. However, the specification does not adequately disclose to one of ordinary skill in the art how to determine which strains of *Mortierella* properly fall into this taxonomic category.

Please also note that the designation “*Mortierella* sp. SAM 2197” does not <sup>de</sup>note a species, but rather one single strain of an unknown species of *Mortierella*.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly

Art Unit: 1651

owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

### Claims

1, 6-7 and 33-34 are/remain rejected under 35 U.S.C. 103(a) as being unpatentable over Kyle for the reasons as stated in the last Office action and the further reasons below.

Applicant's arguments and Akimoto Declaration have been fully considered but they are not deemed to be persuasive.

The declaration is informal in that the 2-5 pages are indicated to pertain to "09/254152", which is not related to the instant application.

Even though *Mortierella alpina* ATCC 42430 does not produce 7 g/l of arachidonic acid under conditions of the Declaration, it cannot be concluded that this means that the strain is not resistant to a carbon source of high concentration and that all that is required for a strain to produce 7 g/l arachidonic acid is such resistance. From the data present a clear nexus or correlation is lacking between the cultivation of any strain of *Mortierella* having resistance to a carbon source of high concentration and the production of 7 g/l of arachidonic acid. All the data show is that one specific strain of *M. alpina* and strain *Mortierella* SAM 2197 have this capacity. Moreover, the strain of Kyle clearly grew in the medium used, which at least suggests that the strain is resistant to the carbon source concentration provided.

Thus, the showing is insufficient to demonstrate that any member of the genus *Mortierella* resistant to "a carbon source in high concentration" will similarly produce 7 g/l arachidonic acid under the process conditions indicated based on the proffer, since only 2 specific strains, one from an unidentified species and one from *M. alpina* are shown. From applicant's showing and from the Kyle reference, a strain of the species *M. alpina* appears to be "resistant" to 8% and 10% glucose, which is deemed a "high concentration" of carbon. There is no clear correlation between the "resistance to a carbon source of high concentration" and the productivity claimed for strains other than those demonstrated.

The scope of the showing must be commensurate with the scope of claims to consider evidence probative of unexpected results, for example. In re Dill, 202 USPQ 805 (CCPA, 1979), In re Lindner 173 USPQ 356 (CCPA 1972), In re Hyson, 172 USPQ 399 (CCPA 1972), In re Boesch, 205 USPQ 215, (CCPA 1980), In re Grasselli, 218 USPQ 769 (Fed. Cir. 1983), In re

Art Unit: 1651

Clemens, 206 USPQ 289 (CCPA 1980). It should be clear that the probative value of the data is not commensurate in scope with the degree of protection sought by the claim.

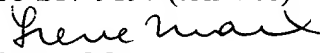
Claims 6 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irene Marx whose telephone number is (571) 272-0919. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on (571) 272-0926. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Irene Marx  
Primary Examiner  
Art Unit 1651